

What is claimed is:

1. A positioning apparatus comprising:

a plug member (12) projected from a first block (1) toward a leading end so as to be inserted into a positioning hole (5) formed in a second block (2);

5 an inclined outer surface (13) provided on the plug member (12) so as to get closer to an axis toward the leading end;

an annular sleeve member (15) arranged outside the inclined outer surface (13) and formed in such a way that at least a part in a circumferential direction is allowed to deform in both a diametrically expanding direction and a diametrically contracting  
10 direction;

a straight outer surface (16) provided on the sleeve member (15) and allowed to come into close contact with an inner peripheral surface of the positioning hole (5);

an inclined inner surface (17) provided on the sleeve member (15) and facing the inclined outer surface (13);

15 a drive member (21) inserted into the plug member (12) axially movably and connected to the sleeve member (15),

at least one of the inclined inner surface (17) and the inclined outer surface (13) is provided on a pair of projections (61, 61) opposed to each other in the diametrically expanding and diametrically contracting direction,

20 escape portions (62, 62) are formed between the projections (61, 61),

the sleeve member (15) is allowed to axially reciprocate by a drive means (D) via the drive member (21).

2. The positioning apparatus as set forth in claim 1, wherein

a slit (51) axially extending is formed in a peripheral wall (15a) of the sleeve  
25 member (15),

a cover member (53) covering at least a part of the slit (51) is arranged outside

the sleeve member (15).

3. The positioning apparatus as set forth in claim 2, wherein  
the cover member (53) is formed annularly in a circumferentially seamless  
manner.

5 4. The positioning apparatus as set forth in claim 2, wherein  
the cover member (53) is integrally formed with a cap member (25) arranged  
from the plug member (12) to the leading end side.

5. A clamping system which is provided with the positioning apparatus as set forth  
in any one of claim 1 to claim 4.

10 6. A clamping system provided with a plurality of positioning apparatuses, in which  
at least one of these positioning apparatuses is the positioning apparatus as set forth in  
any one of claims 1 to claim 4.